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10/042,192

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/042,192 | 01/11/2002 | Thangaraj Veerappan | 23452-144 | 6876 |
| 909 | 7590 | 01/27/2006 | | |
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| | | | 2178 | |

DATE MAILED: 01/27/2006

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/042,192
Filing Date: January 11, 2002
Appellant(s): VEERAPPAN ET AL.

MAILED
JAN 27 2005
Technology Center 2100

International Business Machines Corporation
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7 November 2005 appealing from the Office action mailed 9 June 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-14, 16-24, 26-34, and 36-40 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Peng et al. (US 6252671, filed 22 May 1998, hereafter Peng) and further in view of Watanabe et al. (US 6104381, filed 27 December 1996, hereafter Watanabe).

As per independent claim 1, Peng discloses a method for determining a language in which a document is created (Peng analyzes fonts and content in col. 3, line 45- column 4, line 5, to analyze language) comprising the steps of:

Receiving at least one electronic document (Peng receives fonts, which are a type of language-specific document in col. 3, line 45- column 4, line 5, to analyze language);

Evaluating at least a portion of the character string by comparing each of the characters in the portion of the character string to a plurality of predetermined candidate character sets to determine one or more matches between the plurality of predetermined candidate character sets and the characters in the position of the character string (Peng identifies character set encoding in the font documents in col. 5, lines 40-65);

Determining whether the one or more character sets that match the characters in the portion of the character string correspond to one or more supported languages (Peng identifies character set encoding and language in the font documents in col. 5, lines 40-65); and

Identifying one or more supported languages in which the electronic document is created based on a determination that the one or more characters sets that match the characters in the portion of the character string correspond to one or more supported languages (Peng identifies character set encoding and language in the font documents in col. 5, lines 40-65)

However, Peng fails to discloses that the document includes a character string, wherein characters in the character string are represented in at least one of a plurality of character sets corresponding to an undetermined language. However, Watanabe in col. 11, lines 15-45 discloses that documents of an unknown language are processed in strings. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to process documents of unknown language in strings in order to streamline data processing of large amounts of data.

As per dependent claim 2, Peng discloses the step of determining includes determining that the one or more character set endcoding identifies at least two potential languages in which the electronic document is created (Peng checks for several possible language matches in col. 5, lines 40-65).

As per dependent claim 3, Peng discloses the step of comparing at least one group of characters in the portion of the character string to predetermined groups of

characters (Peng compares the electronic document to predetermined groups of characters in col. 5, lines 40-65).

As per dependent claim 4, Peng discloses the step of detecting at least one identification for the at least one group of characters (Peng checks for several possible language matches and makes an identification in col. 5, lines 40-65).

As per dependent claim 6, Peng discloses that the at least one identification is a bit-flag (flags are used for identification in col. 5, lines 1-30).

As per dependent claim 7, Peng fails to disclose the step of logically ANDing the at least one identification. However, it was notoriously well known in the art at the time of the applicant's invention that when multiple results are produced by a process, they should be ANDed together so that they may be manipulated as a single unit. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to AND the identifications together so that they may be treated as a single unit.

As per dependent claim 8, Peng fails to disclose the step of logically ANDing the at least one identification is repeated until a single identification is determined. However, it was notoriously well known in the art at the time of the applicant's invention that when multiple results are produced by a process, they should be ANDed together repeatedly so that they may be manipulated as a single unit. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to AND the identifications together repeatedly so that they may be treated as a single unit.

As per dependent claim 9, Peng fails to disclose the step of indicating the supported language associated with the electronic document. However, Peng does determine such a language, and it was notoriously well known in the art at the time of the invention that indicating results to the user helps provide the user with useful feedback about the output of a program, so it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have indicated the language in order to provide the user with useful feedback about the output of the program.

As per dependent claim 10, Peng fails to disclose further comprising the step of identifying a character set associated with the supported language indicated. However, Peng does operate with this information, and it was notoriously well known in the art at the time of the applicant's invention that indicating information involved in the operation of a program to the user helps provide the user with useful feedback about the output of a program, so it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to indicate the language in order to provide the user with useful feedback about the output of the program.

As per independent claim 11, it is a system for performing the method of claim 1 and is rejected under similar rationale.

As per dependent claim 12, it is a system for performing the method of claim 2 and is rejected under similar rationale.

As per dependent claim 13, it is a system for performing the method of claim 3 and is rejected under similar rationale.

As per dependent claim 14, it is a system for performing the method of claim 4 and is rejected under similar rationale.

As per dependent claim 16, it is a system for performing the method of claim 6 and is rejected under similar rationale.

As per dependent claim 17, it is a system for performing the method of claim 1 and is rejected under similar rationale.

As per dependent claim 18, it is a system for performing the method of claim 2 and is rejected under similar rationale.

As per dependent claim 19, it is a system for performing the method of claim 3 and is rejected under similar rationale.

As per dependent claim 20, it is a system for performing the method of claim 4 and is rejected under similar rationale.

As per independent claim 21, it is a system for performing the method of claim 1 and is rejected under similar rationale.

As per dependent claim 22, it is a system for performing the method of claim 2 and is rejected under similar rationale.

As per dependent claim 23, it is a system for performing the method of claim 3 and is rejected under similar rationale.

As per dependent claim 24, it is a system for performing the method of claim 4 and is rejected under similar rationale.

As per dependent claim 26, it is a system for performing the method of claim 6 and is rejected under similar rationale.

As per dependent claim 27, it is a system for performing the method of claim 1 and is rejected under similar rationale.

As per dependent claim 28, it is a system for performing the method of claim 2 and is rejected under similar rationale.

As per dependent claim 29, it is a system for performing the method of claim 3 and is rejected under similar rationale.

As per dependent claim 30, it is a system for performing the method of claim 4 and is rejected under similar rationale.

As per independent claim 31, it is a processor readable medium containing processor readable code for performing the method of claim 1, and it is rejected under similar rationale.

As per dependent claim 32, it is a processor readable medium containing processor readable code for performing the method of claim 2, and it is rejected under similar rationale.

As per dependent claim 33, it is a processor readable medium containing processor readable code for performing the method of claim 3, and it is rejected under similar rationale.

As per dependent claim 34, it is a processor readable medium containing processor readable code for performing the method of claim 4, and it is rejected under similar rationale.

As per dependent claim 36, it is a processor readable medium containing processor readable code for performing the method of claim 6, and it is rejected under similar rationale.

As per dependent claim 37, it is a processor readable medium containing processor readable code for performing the method of claim 1, and it is rejected under similar rationale.

As per dependent claim 38, it is a processor readable medium containing processor readable code for performing the method of claim 2, and it is rejected under similar rationale.

As per dependent claim 39, it is a processor readable medium containing processor readable code for performing the method of claim 3, and it is rejected under similar rationale.

As per dependent claim 40, it is a processor readable medium containing processor readable code for performing the method of claim 4, and it is rejected under similar rationale.

Claims 5, 15, 25, and 35 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Peng further in view of Watanabe, and further in view of Schulze (US 6167369, filed 23 November 1998).

As per dependent claim 5, Peng and Watanabe fail to disclose that the at least one group of characters in an n-gram. However, Schulze discloses in the Abstract, lines 1-10 that n-grams may be used to facilitate probabilistic analysis of whether a

language is predominant. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have used n-grams to facilitate probabilistic analysis of whether a language is predominant.

As per dependent claim 15, it is a system for performing the method of claim 5 and is rejected under similar rationale.

As per dependent claim 25, it is a system for performing the method of claim 5 and is rejected under similar rationale.

As per dependent claim 35, it is a processor readable medium containing processor readable code for performing the method of claim 5, and it is rejected under similar rationale.

(10) Response to Argument

With respect to claims 1-4, 6-14, 16-24, 26-34, and 36-40, the applicant argues that Peng and Watanabe do not teach or suggest all of the features of the claimed invention (page 5). This argument is dependent upon the applicant's belief that neither Peng nor Watanabe teach comparing each of the characters in the portion of the character string to a plurality of predetermined candidate character sets to determine one or more matches between the plurality of pre-determined candidate characters sets and the character string (page 5). However, the examiner respectfully disagrees with this argument. Peng discloses obtaining characters from an operating system, here, Windows-95™ to a printer, here a PostScript® printer (column 3, lines 48-51). The characters downloaded to the printer are processed, by comparison, to determine

whether they are in one of two fonts, Type 1, a PostScript® font, or Type 42, a TrueType font (column 3, lines 54). Further, upon determination that a character is of the font Type 42, further processing is used to determine whether the character is of single byte or double byte (column 3, lines 56-58). Further, glyph indices are transmitted to the printer, in order to help facilitate the determination of the font (column 5, lines 14-19).

Further, the applicant argues that there is no proper motivation to combine Peng and Watanabe (page 7). The applicant argues that the examiner has used impermissible hindsight reasoning for motivation, because no suggestion to combine the references exists in the prior art (page 7). The examiner respectfully disagrees. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Further, the examiner believes it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Watanabe with Peng, since it would have allowed a user to process document of an unknown language in strings, in order to streamline data processing of large amounts of data.

With respect to claims 5, 15, 25, and 35, the applicant argues that there is no proper motivation for combining Schulze with Peng in view of Watanabe (page 8). The applicant argues that facilitation of probabilistic analysis of whether a language is predominant would not have constituted motivation, suggestion, or teach of the desirability of the proposed combination (page 8). However, the examiner respectfully disagrees. The combination of Schulze with Peng and Watanabe would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have used n-grams to facilitate probabilistic analysis of whether a language is predominant. This combination would have been desirable, since it would have allowed for the analysis of the determination of a language performed by Peng in view of Watanabe.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted:

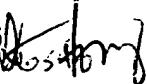


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